



Fleas can spread a number of diseases between animals (e.g., tapeworms, parvoviruses) and from animals to humans (plague is a well known disease spread by fleas). Protective measures can prevent flea infestations and reduce the risk of flea-borne diseases.

Life Cycle

Flea prevention and control involves a basic understanding of their life cycle.

- **The flea life cycle has 4 stages: egg, larva, pupa, adult**
 - Eggs and larvae account for about 80% of the total flea population in an infested home; only 2% are adults
 - Unfed adult fleas can survive many weeks in cool humid conditions, but do not survive sub-freezing conditions
 - Eggs and larvae primarily concentrate where the animal rests- this area should be targeted for intensive cleaning
 - The flea life cycle can range from a few weeks to several months, depending on environmental conditions

Prevention

- **The best management programs focus on prevention, especially for the immature flea stages**
- **This consists of two focus areas**
 - Prevent fleas from entering the home
 - Keep immature stages from maturing into adults
- **Once fleas have invaded your home, it is too late for most preventive measures**

Flea Control Measures

- **Multiple effective agents are available as spot-on treatments; several are also made as alcohol sprays**
 - Selamectin (Revolution®) kills adult fleas and prevents egg development; it is safe for adult cats and dogs
 - Fipronil (Frontline®) kills adult fleas; it is safe for adult cats and dogs but has been found to be toxic to rabbits
 - Imidacoprid (Advantage) kills adult fleas; it is safe for dogs and cats
 - Lufenuron (Program®) inhibits flea egg development but does not directly kill adult fleas. As immediate effects are usually desired in shelters, this product may not be as optimal for flea control in shelters
 - Nitenpyram (Capstar®) is a short-acting product that rapidly kills adult fleas on animals; it is safe for adult dogs and cats

- **Environmental measures are critical for flea control**
 - Particularly if parasitized animals have been living in the shelter previously without any flea control measures
 - Vacuuming and directly disposing of the vacuum bag or waste into a sealed container is one of the easiest and best ways to remove all life cycle stages
 - Regularly remove and wash pet bedding
 - Environmental flea control products are available
- **Topical flea baths can be used to reduce flea populations on the animal**
 - Several of the topical flea baths can be toxic in specific species
 - **Never** use organophosphate agents or chlorinated hydrocarbons **on cats** due to risk of toxicity
 - Rotate the duty of flea bathing among staff so that chronic intoxication with the active agent(s) is avoided
- **With any flea control product, always read and follow all label directions carefully**

Disclaimer: The use of trade names does not in any way signify endorsement of a particular product.

For More Information

Georgis' Parasitology for Veterinarians, 8th edition, Edited by Dwight D. Bowman, Saunders, St. Louis, MO 2003.